

Amendments to the Claims:

Please amend the claims as indicated.

1. (Currently Amended) An apparatus for rapidly, deterministically transferring data, the apparatus comprising:

a processor processing data;

a volatile memory storing the data;

a boot control module booting the processor with a standard operating kernel under a normal operating condition and deterministically terminating all existing processes and the standard operating kernel by rebooting the processor with a data transfer kernel in response to an abnormal operating condition that threatens a loss of the data in the volatile memory, wherein the reboot occurs without a loss of the data within the volatile memory; and

the data transfer kernel ~~exclusively supporting loading only a data save operation in response to rebooting the processor with the data transfer kernel, the data save operation saving~~ the data in the volatile memory to a storage device, and shutting down the processor in response to completing the data save operation.

2. (Canceled)

3. (Previously Amended) The apparatus of claim 1, wherein the data save operation is selected from the group consisting of a storage configuration operation, a transfer process loading operation, a data transfer operation, and a system shutdown operation.

4. (Canceled)

5. (Previously Amended) The apparatus of claim 1, further comprising a memory module comprising data bits for marking data to be saved during the data save operation.
6. (Previously Presented) The apparatus of claim 5, the standard operating kernel further marking data to be saved during a data save operation.
7. (Previously Presented) The apparatus of claim 1, the data transfer kernel configuring the storage device for specialized data save operations.
8. (Previously Presented) The apparatus of claim 1, the data transfer kernel conducting a power down procedure.
9. (Canceled)
10. (Currently Amended) An apparatus for rapidly, deterministically transferring data to a storage device, the apparatus comprising:
 - a storage device non-volatilely storing data;
 - a data transfer kernel supporting data saving operations;
 - a computer in communication with the storage device, the computer deterministically terminating all existing processes by loading the data transfer kernel during a reboot procedure in response to an abnormal operating condition that threatens the loss of data in a volatile memory, wherein the reboot procedure occurs without a loss of the data within the volatile memory; and

the data transfer kernel ~~loading only~~exclusively supporting a data save operation in response to rebooting the computer with the data transfer, the data save operation saving the data in the volatile memory to the storage device, and shutting down the computer in response to completing the data save operation.

11. (Previously Presented) The apparatus of claim 10, the data transfer kernel exclusively supporting devices and processes required to save data to the storage device.

12. (Canceled)

13. (Currently Amended) An apparatus for rapidly, deterministically saving data, the apparatus comprising:

means for processing data;

means for volatily storing the data; and

means for booting the processing means with a standard operating kernel under a normal condition and deterministically terminating all existing processes by rebooting the processing means with a data transfer kernel without a loss of data in the volatile ~~storing means~~ memory in response to the abnormal operating condition, the data transfer kernel ~~loading only~~exclusively supporting a data save operation in response to rebooting the processing means with the data transfer kernel, the data save operation saving the data to a non-volatile storage, and the data transfer kernel shutting down the processing means in response to completing the data save operation .

14. (Previously Presented) The apparatus of claim 13, further comprising means for configuring the non-volatile storage for data save operations.

15. (Canceled)

16. (Previously Presented) The apparatus of claim 13, further comprising means for marking the data to be saved during the data save operation.

17. (Currently Amended) A system for rapidly, deterministically saving data to a storage device, the system comprising:

a processor processing data;

a memory volatily storing the data;

a storage device non-volatily storing the data; and

a boot control module booting the processor module with a standard operating kernel under a normal operating condition and deterministically terminating all existing processes and the standard operating kernel by rebooting the processor with a data transfer kernel in response to an abnormal operating condition that threatens the loss of the data in the memory, wherein the reboot occurs without a loss of the data in the memory; and

the data transfer kernel loading only exclusively supporting a data save operation in response to rebooting the processor with the data transfer kernel, the data save operation saving the data in the memory to the storage device, and shutting down the processor module in response to completing the data save operation.

18. (Previously Presented) The system of claim 17, the standard operating kernel marking the data in the memory to be saved by the data transfer kernel during the data save operation.

19. (Previously Amended) The system of claim 17, wherein the data transfer kernel exclusively supports devices, operations, and processes required to save data.

20. (Original) The system of claim 17, wherein the data transfer kernel configures the processor for data saving operations.

21. (Original) The system of claim 17, wherein the data transfer kernel configures the storage device for specialized data saving operations;

22. (Previously Presented) The system of claim 17, the data transfer kernel conducting a power down procedure.

23. (Canceled)

24. (Currently Amended) A method for rapidly, deterministically saving data, the method comprising:

detecting a data save condition that threatens the loss of data in a volatile memory;

deterministically terminating all existing processes by rebooting a processor ~~module~~ with a data transfer kernel loading only~~exclusively supporting a data save operation in response to rebooting the processor with the data transfer kernel saving the data in the volatile memory to a non-volatile storage device~~, wherein rebooting the processor ~~module~~ occurs without a loss of the data in the volatile memory;

saving the data in the volatile memory to the non-volatile storage device using the data save operation; and

shutting down the processor in response to completing the data save operation.

25. (Previously Presented) The method of claim 24, the data transfer kernel exclusively supporting devices, operations, and conducting processes required to save the data to the non-volatile storage device.

26. (Previously Presented) The method of claim 24, further comprising configuring the non-volatile storage device to receive the data.

27. (Previously Presented) The method of claim 24, further comprising marking the data to be saved by the data transfer kernel.

28. (Currently Amended) A non-transitory computer readable storage medium storing a computer readable program code for rapidly, deterministically saving data, the program code:

deterministically terminates all existing processes by rebooting a processor module with a data transfer kernel ~~exclusively supporting a data save operation~~ in response to an abnormal operating condition that threatens the loss of data stored in a volatile memory module, wherein the reboot occurs without a loss of data within the volatile memory module;

load only a data save operation in response to rebooting the processor module with the data transfer kernel;

transfers the data with the data save operation from the volatile memory module to a non-volatile storage device without a loss of data in the volatile memory module;

shuts down the processor module in response to completing the data save operation

29. (Currently Amended) The computer readable storage medium of claim 28, the computer readable code marking data in the volatile memory module to be saved to the storage device.

30. (Previously Presented) The computer readable storage medium of claim 28, wherein the data transfer kernel exclusively supports devices, operations, and processes required to save data to the storage device.